The Relationship between Health Locus of Control and Individual Adherence to Health Protocols

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Abstract: The covid-19 outbreak has affected more than 180 countries around the world. adherence is one of the keys to preventing the spread of the spread of the covid-19 virus. One of the factors that influence adherence is health locus of control. This study use a correlational method that examines the relationship between health locus of control with individual adherence to health protocols. The respondents in this study are 160 people. The selection of respondents using purposive sampling. Data analysis using Spearman-Rho. The results showed that there was a significant relationship between health locus of control and adherence to health protocols with p = 0.000 (p <0.05) and r = 0,359.

1 INTRODUCTION

The number of people infected with the Covid-19 virus continues to increase every day. There are more than 196 million positive cases of the Covid-19 virus in the world. In Indonesia more than 1.3 million. Around 3.4 million were declared cured and more than 95,000 died (Covid19.go.id, 2021). The number of cases and deaths from the COVID-19 virus in Indonesia is high compared to other Southeast Asian countries. According to the Covid-19 Task Force, many people who do not comply with health protocol rules are one of the causes of the increasing number of Covid-19 cases in Indonesia.

Novel coronavirus 2019 (nCoV-2019) is a new type of virus that belongs to the SARSr-CoV virus (Zhou et al., 2020). The COVID-19 virus infects the acute respiratory tract in humans (Zhou et al., 2020). Some of the symptoms, namely anosmia, dysgeusia, fever, coughing, sore throat, dizziness, difficulty breathing, malaise, indigestion, and loss of the ability to smell (Kaye, et.al 2020; Singhal, 2020). groups that are vulnerable to the covid-19 virus, namely the elderly, smokers, men, children, and people with chronic diseases (high blood pressure, diabetes, heart disease and respiratory disease) (Siagian, 2020; Liu et al., 2020).

The Indonesian government has issued a number of health protocols rules with the aim of preventing and breaking the chain of the Covid-19 virus. Some of these health protocols are using masks, social distancing of two meters, avoiding crowds, washing hands regularly, covering with hand pads when coughing or sneezing. , checking body temperature, swab tests for everyone who has been in contact with Covid-19 patients, and regional quarantine. (WHO, 2020; Ministry of Health, 2020). However, in fact there are still many people who do not comply with these rules.

People who tend to not comply with the rules of covid-19 are young adults and men (Al-Hanawi et al., 2020; Nivette et al., 2021). Men and women, namely the attitude and application of rules (Al-Hanawi et al., 2020). Many people who comply with health protocols are still infected with the covid-19 virus, especially those who do not comply at all. So, an adherence attitude is needed because as a measure to prevent the spread of COVID-19.

Adherence is an individual's positive behavior in applying the rules that have been approved by the health service (Horne et al., 2005). One of the psychological factors affect adherence is the health locus of control (Zahednezhad, Poursharifi, & Babapour, 2011). Wallston, Wallston, & DeVellis (1978) health locus of control is the level of individual beliefs about health and behaviors that affect health internal or outside of control, chance, fate, or luck (external).

The research of Náfrádi, Nakamoto, & Schulz (2017) shows health locus of control has an effect on adherence behavior related to health. In addition,

Adhanty, Ayubi, & Anshari (2021) also found that there was a significant relationship between health locus of control and adherence. It is hoped that individuals with a good health locus of control will tend to prevent themselves from getting rid of the covid-19 virus. One of the behaviors related to health during the pandemic is adherence to health protocols. So, this study will focus on adherence which is influenced by psychological factor health locus of control.

2 METHOD

This study uses quantitative methods. According to Azwar (2013) quantitative is a method used to analyze data in the form of numerical statistics. Meanwhile, the type in this study is correlational. According to Gay, Mills & Airasian (2011) correlational is a method to check the correlation between two or more variables.

Population is the generalization area of the subject that has certain characteristics (Gay, Mills & Airasian, 2011). The population in this study is the people of the city of Padang. The sampling method used purposive sampling technique. According to Gay, Mills & Airasian (2011) purposive sampling is a sampling technique based on certain phenomena or considerations. The criteria for the subjects in this study were young adults (18 years – 25 years) and domiciled in Padang. Look Table 1 for a description of the participants in this study.

Table 1: Gender (N=160).

	N	%
Gender		
Male	39	24,4 %
Female	121	75,6 %

Data collection uses a multidimensional health locus of control scale form A and the Morisky compliance scale which has been modified according to this study. Both scales have been tested for validity and reliability. The multidimensional health locus of control scale form A contains 17 valid items with a correlation coefficient of 0.811. Meanwhile, for the Morisky 10-item compliance scale, all of them are declared valid with a correlation coefficient of 0.765.

The research data obtained were then analyzed using the SPSS Statistics 17.0 for Windows program. Furthermore, spearman's rank correlation analysis was used to test the research hypotheses.

3 RESULTS

Based on the results of the study, the health locus of control was in very high category. The perception level of the subject's health control is good. Meanwhile, adherence is in the medium category. The following is the result of processing variable categorization data. Based on table 2, it can be seen that in the very low category there are 4 subjects (2.5%). The low category contained 21 subjects (13,1%). Category while there are 24 subjects (15%). The high category contains 42 subjects (26.3%). Very high category there are 69 subjects (43.1%).

Table 2: Health Locus of Control Score Categorization (N=160).

Aspect	Category	F	(%)
Internal	Very low	3	1,9%
	Low	12	7,5%
	Medium	25	15,6%
	High	20	12,5%
	Very high	100	62,5%
Total		**160**	**100%**
Chance	Very low	6	3,8%
	Low	15	9,4%
	Medium	36	22,5%
	High	43	26,9%
	Very high	60	35%
Total		**160**	**100%**
Powerful other	Very low	13	8,1%
	Low	23	14,4%
	Medium	8	5%
	High	30	18,8%
	Very high	86	53,4%
Total		**160**	**100%**

Based on table 3, it can be seen that in the very low category there are 9 subjects (5.6%). The low category contains 39 subjects (24.4%). In the medium category there were 45 subjects (28,1%). In the high category there were 34 subjects (21.3%). Very high category there are 33 subjects (20.6%).

Table 3: Adherence to health protocol Score Categorization (N=160).

Aspect	Category	F	(%)
forgetfulness frequency	Very low	16	10%
	Low	20	12,5%
	Medium	40	25%
	High	40	25%
	Very high	44	27,5%
Total		**160**	**100%**
Not applying	Very low	21	13,1%
	Low	31	19,4%
	Medium	42	26,3%

	High	29	18,1%
	Very high	37	23,1%
Total		**160**	**100%**
Stop obeying	Very low	5	2,5%
	Low	19	11,9%
	Medium	35	21,9%
	High	29	18,1%
	Very high	72	45%
Total		**160**	**100%**
Distracted by schedule	Very low	42	26,3%
	Low	40	25%
	Medium	12	7,5%
	High	15	9,4%
	Very high	51	31,9%
Total		**160**	**100%**

This study also conducted prerequisite tests before hypothesis testing, such as normality tests and linearity tests. The results of the normality test on the health locus of control variable were 1.71 and p=0.006 (p<0.05), which indicated that the data were not normally distributed. Meanwhile, the Compliance variable in Implementing the Covid-19 Health Protocol has a value of K-SZ = 1.09 and p = 0.184 >(p 0.05) which indicates that the data is normally distributed. Meanwhile, for the linearity test, F = 25.85 and p =0.000. That is, the linearity in this study is met.

The results of the correlation between health locus of control and adherence in implementing health protocols obtained a correlation coefficient (r) = 3.72 and p value = 0.000 (p <0.05). The results of this study indicate that there is a significant relationship between health locus of control and adherence in implementing health protocols. Therefore, it can be concluded that H0 is rejected and Ha is accepted.

This study also conducted an additional test, namely a different test. Different tests were conducted to find out the differences between men and women in complying with health protocol rules. The different test used in this study was Mann-Whitney U. The results of the different test showed that there was no significant difference between men and women in adherence with the health protocol rules with p value = 0.181 (p> 0.05).

Table 4: Different test.

Gender	Mean	P	Description
Male	89,13	0,181	Not significant
Female	77,72		

Measurement of health locus of control was adapted based on aspects of health locus of control, namely internal, chance, and powerful other (Wallston et al., 1978). Based on the results of the analysis, it was found that the subject had a very high level of health locus of control. Overall aspects are in the very high category with internal aspects having the highest category This indicates that the subjects in this study have health perceptions that tend to be influenced by themselves (internal).

4 DISCUSSIONS

This research aims to determine the relationship between health locus of control and adherence to health protocols. Based on the study results, it was found that there is a significant relationship between health locus of control and adherence to health protocols. Health locus of control is in the very high category and adherence to health protocols is in medium category.

According to Helmer, Krämer, & Mikolajczyk (2012) stated that individuals with high internal health locus of control tend to be more concerned about their health. Grotz, Hapke, Lampert, & Baumeister (2011) show that people who have a high internal health locus of control do more health-related activities. In addition, Cheng, Cheung, & Lo (2016) also found that there was a relationship between internal health locus of control with self-health evaluation and healthy living behaviors, such as the quality of mental health, exercise, and diet.

The measurement of adherence to the health protocol was modified from the aspects of compliance, namely the frequency of forgetting, not applying, stopping to comply, and being disturbed by the schedule. Based on the results of the analysis, it was found that the subject had a moderate level of adherence to the health protocol. All aspects are in the very high category except for the non-implementing aspect which is in the medium category.

According to Nivette et al. (2021) many factors make people stop obeying the rules, such as low self-control, inconsistent policies, and others. Hills & Eraso (2021) A person who does not comply with the rules is more susceptible to the Covid-19 virus.

This study also conducted a different test to determine the difference between men and women in complying with health protocols. Based on the results of the different tests, there were no significant differences between men and women in complying with the health protocol rules with p = 0.181. This

shows that both men and women tend to have the same level of compliance.

The results of this study are in accordance with previous research by Guzek, Skolmowska, & Głabska (2020) which showed that there were no significant differences between men and women in complying with COVID-19 rules, such as wearing masks and staying at home. Research conducted by Masters et al. (2020) also shows that there is no significant gender difference in complying with the Covid-19 rules, namely social distancing.

Based on the explanation above, it can be concluded that health locus of control is related to individual compliance. Especially in this study, namely individual compliance with health protocols. That is, the psychological factor of health locus of control has a positive effect on individuals in complying with the rules of the health protocols.

5 CONCLUSIONS

Based on the results of research and hypothesis testing, it can be concluded as follows: There is a significant relationship between health locus of control and individual compliance in implementing the COVID-19 health protocols, health locus of control in young adults is in the very high category. This shows that young adults have a good perception of health, the adherence of young adults in implementing the COVID-19 health protocols is in the moderate category, and there is no significant difference between women and men in complying with the Covid-19 health protocols.

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